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TOWN OF NEWTOWN
PUBLIC WORKS DEPARTMENT

Fairfield Hills Mixed Use Proposals
Utility Information
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Sewer & Water

The Town of Newtown through its Water & Sewer Authority (WSA) is the agency that handles all sewer or potable water issues. Those systems are managed and operated by Suez Operating Systems, which reports directly to the Director of Public Works.

Water is supplied by a federally designated sole source aquifer. The raw water quality meets drinking water standards but is chlorinated by State law before final distribution. The distribution piping system is treated to protect water quality from either lead or iron leachate. Frequent testing has documented the absence of any type of contamination.

The water is pumped from wells to twin 500,000 gallon storage bunkers at the top of the campus and delivered by 10" to 18" cast iron pipes to the various distribution systems. These bunkers deliver a 3-5 day reserve capacity and nominal system pressures of 40–50 psi. (Slightly higher or lower depending on the site of a specific building). Facilities for both wells and the main pump house are supported by on site emergency backup generators, in the event of power loss from storms or other causes. There is further backup from a trailer mounted emergency generator should an onsite generator fail. The entire system is monitored and alarmed thru a SCADA system located at the main Waste Water Treatment Plant, at 24 Commerce Road.

The current distribution system actively leads to one or more shutoff valves in front of every un-occupied building under consideration by this proposal. The WSA will be responsible to extend that external lateral feed to the new building master water meter. For future billing purposes the master meter will have a "remote electronic read". The new plumbing of the building may lend itself to more than one master meter (commercial section/residential section). This will be considered by the WSA and should be proposed as early as possible. Any sub-metering proposed by the developer will be entirely at their expense and will not be operated or maintained by the WSA nor will it be utilized for billing by the WSA

The developers would be responsible to make all new connections to the new building master meter. Under existing codes, booster pumps may be required for more modern plumbing fixtures and fire protection pumps but were not used in the original hospital facility. Booster pumps and some form of filtration is generally used in currently occupied structures.

The Town took over possession and operation of the water system on August 4, 2004. Since that time, nearly $2 million has been invested in modernizing and improving overall system quality and reliability. This has included but is not limited to Wells #3 and #7, two (2) main water bunkers, main water pump house, SCADA system and electrical lines connecting all wells and the pump house. While assessments have been proposed for some of

that investment, it is limited to the previous water customers. While there is no current fee for connecting to this water system, "new" capital improvements, in the future, would lead to a pro-rata assessment for those improvements. When assessments are applied, they typically would be recovered over 20 years. Usage fees are charged at a rate of $9.453 per thousand gallons as recorded by the building master water meter. There are also charges for the size of the service provided and any dedicated fire protection hydrants. Billing is currently done on a quarterly basis.

There are three (3) potential future capital water projects. One would be replacement of the existing distribution system. There is no immediate or even near term plan for this project because of cost and the existing system performance at a reliable level. Only the availability of very substantial grants might change that. Second, is the overhaul of Well #8, which is one of our reserve wells. Cost is moderate and provides increased redundancy. Finally, Aquarion Water Systems, encouraged by the Connecticut State Department of Public Health, which supervises our water system, has encouraged setting up an inter-connection with their main system in Newtown. The cost would be shared and would provide another layer of redundancy.

Sewers became the responsibility of the WSA on September 5, 1997 when the State owned and operated waste water treatment plant was shut down with flow diverted to the Town's new Waste Water Treatment Plant located at 24 Commerce Road.

As part of the Town takeover of the State sewer system, 100,000 gallons per day of sewage treatment plant capacity was transferred to the Town from the State exclusively for Fairfield Hills use and development. As part of that transfer of treatment capacity, the State required that no levy of assessment fees be made on the "existing" system until that entire 100,000 gallons per day of treatment capacity was utilized. We are well under that threshold. There is no connection fee for connecting to the sewer system**.** However, there is currently underway a $1.8 million upgrade that will provide a "new" main collection system under a 50% Federal Economic Development Administration (EDA) grant. This project will provide improvement to all the buildings under consideration and as such would require a pro-rata share of the 50% town match. This project will in itself not directly connect all the buildings under consideration in this proposal. There will be designated manholes in the vicinity of every building to which that building's sewer lateral may be connected. It will be the responsibility of the developer to make that connection.

Under this grant, all the sewer mains and manholes servicing all the buildings under consideration in this proposal, will be replaced. The current elevations or inverts of the mains can be as deep as 18-20'. These will all be raised nominally to 7-8' and provide "first floor service" to each building. The EDA project will finalize the exact location of the new manholes. However, for early conceptualization, sewer flows will generally be from west to east and then flow south to north to exit the campus toward the Waste Water Treatment Plant. So, for example, the connecting manholes for Norwalk, Stamford or Cochran would be on the east side of those buildings and on the north side for Kent.

When the Town rehabilitated existing buildings or approved new structures, all sewer service laterals were raised or set to this new elevation (first floor service) by connecting with lateral drops into the existing manholes. Accordingly, the developers should take note that the provision of sewer capacity in reuse of basement areas will require the installation of "ejector pumps".

There is a usage fee, billed quarterly, based on the master water meter for each building. By WSA policy, only 90% of that water meter reading is used to calculate the sewer usage billing, which currently is set at $8.34 per thousand gallons. As in the case of the water billing, all charges go to the party responsible for the master meter reading. Any sub-metering would be the sole responsibility of the building operator and not be supported, maintained or used by the WSA for billing purposes.

Storm Water

There is a storm water collection and discharge system for the entire campus to which the buildings in the proposal have been connected. The campus eventually discharges into a small receptor stream that has created some thermal water temperature issues that the Town would like to remediate. Accordingly, the Town as part of the EDA project to replace the antiquated sewer mains, has requested that its engineering consultant develop a re-use plan for the old piping that would allow a capture of ground water and surface discharges to provide some thermal balance to the present receptor water course. It is hoped that this may provide the opportunity to include roof leader discharges from future development projects into this remediation system. We will provide more information on this option as it becomes available. The developer's exposure in this project would generally be limited to cooperation in making a change in connections. It would not affect the development of the buildings.

Electricity

Electric power is provided on campus by Eversource. It is a three-phase, primary loop feed system that can be supplied from either direction for continuous power should an interruption occur on the loop. The primary circuits have been improved and hardened by Eversource because of the "critical" facilities that are on the circuit. These facilities include two schools, a water supply system, a senior housing facility, municipal offices, a correctional facility and most importantly a brewery. While none of the buildings in this proposal currently have live power, they all have direct access to the primary loop. The loop is entirely underground on the campus with potential connection points served by accessible pull boxes located near every building in the proposal. However, new transformers and an interconnection agreement with the utility would be required for each location.

Natural Gas

The Yankee Gas Division of Eversource provides natural gas to the campus. The main supply piping is an 8" medium pressure line that has been sized to serve the campus and anticipated future development as envisioned by this proposal. The current main was installed by the Town working directly with Eversource. It enters the campus from Wasserman Way going west parallel to the soccer field to the intersection of DG Beers Street and Trades Lane. There is a connection valve in the intersection that would allow expansion south toward Kent as an option.

The main continues west to the intersection of Keatings Farm Road and Simpson Street. There is a short extension continuing west past the intersection with a specific connection valve at the end for future expansion west to Cochran, Stamford and Norwalk. The main turns south from the intersection, passes Plymouth and continues up Simpson toward the Municipal Center and Newtown Youth Academy.
At the intersection of Simpson and Primrose, a 2" lateral service line goes east onto Primrose and enters the back of the Municipal Building. The 8" main continues south toward the Newtown Youth Academy leaving a future expansion valve and a lateral to the NYA and 1" service line to the Town's Emergency Operations Center.

Any expansion of service or new service will require the developer and the Town working with Eversource. In the past, for service extensions, Eversource provided all the pipe and the field technicians to weld the pipe at no charge to the Town because the Town provided the excavation. In this case, as we would be offering substantial new gas consumption, we expect that similar arrangements would be available for future service extensions to any building on the campus. However, the Developer would be required to provide the plumbing connections at their building for Eversource to install and connect their meter.

Communications

There are two primary locations that provide feeds to form a loop for phone, cable, or fiber that come from utility poles at the intersection of Keatings Farm and Mile Hill South or the pole just west of Trades Lane and Wasserman Way. There are substantial amounts of conduit and pull boxes installed by the Town starting at these two connection points that form a circle around the center of the campus with the Municipal Center and Shelton on the inside of the circle and various connections radiating outward. The Town does not currently have "facility capacity" reports on each of the cable/fiber systems. However, the Town would facilitate specific technical requests on those systems as well as facilitate the use of the existing conduit systems of the Town and various communication companies.

Remaining Tunnels and Hazardous Materials:

There is a map of the locations (posted to the website) where the existing pedestrian and utility tunnels were cut and capped so that utilities could be run unobstructed down roadway right of ways on the campus. As noted on the drawing, there is a clear passage for all utilities coming from Wasserman Way or Mile Hill South to the intersections at Trades Lane / DG Beers and Keatings Farm or Keatings Farm and the intersection with Simpson. This clear passage continues to the intersections of Primrose with Simpson and DG Beers. It should be noted that the balance of the tunnels were left in the ground and do contain hazardous material in or around them. It is expected that any developer would permanently seal their basement entrance to any tunnel still connected to their project building(s). The historic master utility drawing for the campus (posted to the website) clearly shows the full extent of the original utility and pedestrian tunnel system for reference.

Snow Removal

For winter storms, the Public Works Highway Division provides overall direction. Direct on campus supervision for snow removal is provided by the Park & Recreation Department. All public roadways and parking areas are generally kept open during storms for emergency personnel with complete curb to curb cleanup immediately after conclusion of a storm event. All public sidewalks are maintained by Park & Recreation or contracted personnel. Independent building operators would be expected to clear snow away from their building pedestrian or emergency entrances or make arrangements with private contractors for any increased level of service.

Followup

The Town with its own forces installed the bulk of all the underground conduit for the various utilities. As such we have the actual operators on staff who completed those projects and we have some digital data compilation of those projects. All of that first-hand knowledge would be made available as needed for specific buildings. Because a new master utility drawing has not been completed, only direct information for a specific building can be provided. However, the original master utility drawing posted to the website, as noted above, can be useful to avoid problems when any excavations may be necessary. When specific questions arise on specific buildings or part of the site, please send those requests through the project coordinators and the response will be made available to all parties.